



JEDC.org
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December 31, 2014

**Kim Kiefer, Manager
City & Borough of Juneau
155 South Seward Street
Juneau, Alaska 99801**

RE: FY16 MARINE PASSENGER FEE PROCEEDS REQUEST – ELECTRIC VEHICLE CHARGING STATIONS

Dear Ms. Kiefer:

In 2001, Princess Cruise Lines began purchasing surplus electricity via shore connection while in port. This innovation increased awareness of the benefits of shifting from petroleum fuels to renewable sources in the visitor industry and inspires other advances in Juneau today. Extending the electrification of shore-based tourism transit to the Mendenhall Glacier would provide many visitors the opportunity to experience Juneau powered entirely by a local renewable resource. The Juneau Economic Development Council, as part of a collaborative effort within the Renewable Energy Cluster Working Group, and with particular support from AEL&P, Alaska Coach Tours, and Gastineau Guiding, requests funding from the Marine Passenger Fee Proceeds to support the installation of a public electric vehicle charging station for busses and personal vehicles at the Mendenhall Glacier. This infrastructure will support local tour companies' purchasing new electric buses or converting existing buses from diesel to electric motors.

Electric buses provide significant benefits including savings in fuel and maintenance expenses for the operator, and a reduction in the environmental impacts associated with operating a diesel coach. Diesel powered motors operate at much lower efficiency than electric motors, which can allow for significant savings when operating an electric bus. In many regions in the country, where electricity is largely generated with natural gas and coal, fuel savings may be the sole impetus for operating an electric bus, as they may not be able to claim a reduction in emissions. However, in Juneau, a diesel to electric conversion eliminates emissions and dramatically lowers noise levels, all while reducing the quantity of potentially contaminating fluids required to operate the vehicle. These benefits extend to tour companies, visitors, and locals alike.

Consider Juneau's Mendenhall Glacier. This world class tourist attraction receives close to 450,000 visitors each year, the majority of whom travel there via cruise ship and diesel coach. Currently, air and noise pollution created by the fleet of diesel buses that move tourists between the docks and the Mendenhall Glacier Visitor Center colors their experience. Supporting this proposal enables local companies to invest in improving the visitor experience along this route while addressing one of the Long Term Actions identified under Strategy T3-B of the Juneau Climate Action Plan, "Work with tour companies to replace tour buses with more energy efficient models. Consider the feasibility and economic viability of replacing existing fleet with electric buses."

All shifts to new technologies come with growing pains. One issue JEDC has identified is the need for standardized charge equipment connections. Currently, electric passenger vehicles utilize the SAE J1772 standard plug seen on the charging stations already installed around Juneau. Initial investigation into charging stations for buses shows that some electric buses and conversions use proprietary charge ports while others provide options for the SAE standard. Additionally different size buses have different power requirements. JEDC will work with local companies to design the charging station to meet anticipated demand and to find equipment that uses the SAE standard plug, thus lowering the initial capital cost of all conversions, including passenger vehicles, which could allow this public charging station to attract a broad and steady base of users. This awareness by JEDC results largely from the application of lessons learned through the implementation of a grant awarded to the Juneau Community Foundation and City & Borough of Juneau by the Bloomberg Partners for Places grant program.

To follow the success of the Bloomberg Partners for Places grant, which allowed for the installation of multiple EV charging stations around Juneau, JEDC additionally proposes to partner with City & Borough of Juneau and the Juneau Community Foundation to apply for a second award of the Partners for Places grant. In a second grant application, the Marine Passenger Fee funds would bolster the credibility of the application by demonstrating the availability of matching funds prior to a decision to award. This multiplication of passenger fees might allow for as many of three stations suitable for charging buses, rather than just one as detailed in the funding request below.

Work can begin as funding becomes available, or following the proposed timeline.

- January, 2015: Submit application for Bloomberg Partners for Places grant
- July, 2015: Receive funding from passenger fees
- October, 2015: Final decision made for type and brand of charger, site location(s), and prospective owners/operators of charger(s)
- November, 2015: Award design contract
- December, 2015: Complete design and solicit construction bids
- January, 2016: Award construction contract
- April, 2016: Charging stations installed and operational

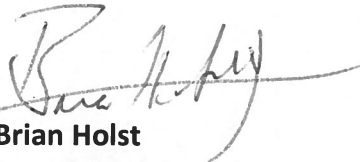
The above timeline assumes the Bloomberg funds are not awarded. If we are able to leverage the passenger fee funds and win Bloomberg funds as well, the scope will increase to add locations, in which case the timeline to install the first charger will remain the same.

Funds will allow for the purchase of electric bus and car charging equipment, design and installation of the station, and staff time at JEDC for project management. Because this will be the first electric bus charging station in Alaska, there are many questions and issues to resolve related to location, design, access, equipment and options selection, ownership, operating, and pricing. This effort will require coordination and collaboration between multiple partners in our community. JEDC already facilitates these partnerships through the Renewable Energy Cluster Working Group Electric Vehicle Initiative.

\$ 10,000 – Design & Permitting
25,000 – Charge Equipment
45,000 – Contractual Services (Site Prep & Installation)
25,000 – Staff Support
\$100,000 - Total

This proposed project clearly benefits the Juneau tour industry, the residents and businesses in Juneau, and will advance the long term economic and environmental sustainability of our community.

Regards,



Brian Holst
Executive Director